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EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 10275924
PUBLICATION DATE : 13-10-98

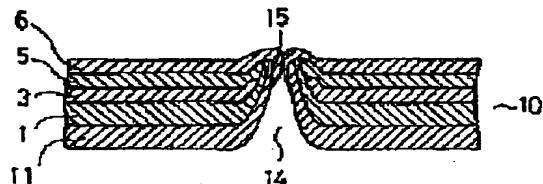
APPLICATION DATE : 28-03-97
APPLICATION NUMBER : 09095276

APPLICANT : SANYO ELECTRIC CO LTD;

INVENTOR : TERAKAWA AKIRA;

INT.CL. : H01L 31/04

TITLE : METHOD OF MANUFACTURING
PHOTOVOLTAIC DEVICE



ABSTRACT : PROBLEM TO BE SOLVED: To enable the manufacturing yield to be increased by a method wherein a surface electrode formed on a semiconductor layer is connected to a back side electrode passing through a hole made by previously breaking through this surface electrode from the back side electrode using a mechanical means.

SOLUTION: A back side electrode 11 formed of a metallic foil is bonded onto the back side of an insulating film substrate 1, later a back side electrode 3 is formed on the surface of the substrate 1 and then the back side electrode 3 is turned into a pattern forming a removal part by a laser, etc. Next, a semiconductor layer 5 is formed on the back side electrode 3 by filling the removal part in. Furthermore, a needle is thrust from the back side electrode 11 side into near the central part of the removal part so as to make a hole 14 breaking through the back side electrode 11, the substrate 1, an under side electrode 3 and the semiconductor layer 5. Successively, a surface electrode 6 is formed on the semiconductor layer 5 and at this time, a part of the surface electrode 6 is bonded onto the periphery on the upper end of the hole 14 so as to connect the surface electrode 6 to the back side electrode 11.

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